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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,999	02/20/2004	Timothy B. Rhyme	P50-0061	7141
27215	7590	06/15/2006	EXAMINER	
MICHELIN NORTH AMERICA, INC.			STORMER, RUSSELL D	
515 MICHELIN ROAD			ART UNIT	
P.O. BOX 2026			PAPER NUMBER	
GREENVILLE, SC 29602			3617	

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/782,999	Applicant(s) RHYNE ET AL.	
	Examiner Russell D. Stormer	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. The amendment filed March 30, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The shear layer 120 shown as a solid structure in replacement figure 1 was not shown as such in the original figure 1.

Figures 15 and 16, as added in the replacement sheet filed March 30, 2006, introduce new matter into the disclosure because the drawings as originally filed did not show the spokes 150 to be arranged in pairs or having the arcuate cutouts (unlabelled) as shown in figure 15. Further, the originally drawings did not show the connection of the spokes 150 to the rim 10 in a slot 152 as now shown in figure 16, nor did they show the spoke to be a separate part set in the groove.

Despite the fact that some of the subject matter considered to be new matter was claimed in the claims as originally filed, there was insufficient original disclosure to suggest that the shear layer, the spokes, and the slot would look or be structured as now shown in the drawings.

Applicant is required to cancel the new matter in the reply to this Office Action.

2. Absent the replacement drawing sheet, the objection to the drawings must be repeated.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the shear layer and spokes of claim 1, and the enlarged end portion and the slot of claim 4 must be shown or the features canceled from the claims.

It is understood that the shear layer 120 is supposedly shown in figure 2, as are the spokes 150, but the figure merely shows the shear layer as being empty space between the membranes 130, 140. The spokes are merely shown as lines, or just the outer side of the tire 100. The other drawing figures do not show the shear layer or the spokes any better.

Since figure 2 is a cross-section, the shear layer 120 and the spokes 150 should be shown in cross-section.

The enlarged end of the spokes and the slot in the wheel are not represented at all.

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

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changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The amendment filed March 30, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is the reference to new figures 15 and 16, and must be deleted.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 2, 3, 5, 6, 16, 18, 22, 23, 24, and 27 are rejected under 35

U.S.C. 102(b) as being clearly anticipated by Lang et al.

The shear layer 5 is between the first and second membranes 6, and the spokes 13 extend transversely across the band.

5. Claims 1, 2, 4, 13, 16, 18, 22, 23, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Borland.

An elastomeric shear layer is set between membranes 5 and 7, and the spokes 18 extend transversely across the band. With respect to claim 4, the area between the rim flanges 16, 17 forms the slot in the wheel.

6. Claims 1, 2, 4, 7, 9, 11, 13, 16, 20, 22, 23, 24, 27, and 29 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Dodge.

The shear layers and membranes are shown at **D**, **E**, and the spokes are shown at **H** and **I**. With respect to claims 4 and 29, the slot is formed between the rim flanges.

With respect to claim 11, the spokes **H** have a curvature to facilitate bending as shown in figures 1 and 2.

7. Claims 1, 2, 5, 6, 16, 18, 20, 21, 22, and 23 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bessler (US Patent 1,414,544).

With respect to claim 6, the spokes are oriented parallel to the axial direction as shown at 54.

8. Claims 1, 2, 3, 5, 6, 16, 18, 22, 23, 27, 28, and 30 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Lambert.

The shear layer 16 is disposed between membranes 13, and the spokes 12 extend transversely across the band. The mounting band is shown at 11 while the radially outer band is shown at 15.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 14, 15, 17, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al.

The shear modulus, the tensile modulus of the shear layer, and the thickness is not defined in Lang et al, however, those of ordinary skill in the art could readily choose materials and designs to have a specific shear modulus, specific tensile modulus, and

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ratios thereof based on the intended use of the wheel, the environment in which it will be used, the weight of the vehicle, the intended cost of the wheel, etc., and any chosen modulus or ratio would have been an obvious mechanical expedient.

12. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al in view of Japanese patent 1-311902.

For the spokes 12, 13 to have a zigzag pattern or a repeating X-pattern would have been obvious as taught by Japanese 1-311902 as obvious alternate formations of spokes which would provide suitable cushioning of the tire.

13. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Borland in view of Lakoff.

The spokes of Borland to include spokes oriented parallel to the axial direction and spokes oriented perpendicular to the axial direction would have been obvious as taught by Lakoff in order to absorb shocks and support the tire in more than one direction or plane. Note the spokes 6 and 14 of Lakoff.

14. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al in view of Welter.

For the canvas layers 6 of Lang et al to form angles of between 10 and 45 degrees would have been obvious as taught by Welter in order to suitably reinforce the plies or membranes of the tire.

15. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dodge in view of Pratt.

For the mounting band to be adhesively joined to the wheel would have been obvious as taught by Pratt as such is well-known in the tire art and would better retain the tire on the rim of the wheel of Dodge and prevent accidental separation.

Response to Arguments

16. Applicant's arguments filed March 30, 2006 have been fully considered but they are not persuasive.

The claims are rejected as best understood in light of the new matter objection made to the replacement drawings.

The references would inherently have means for interconnecting the spokes to the inner and outer layers inasmuch as they are connected to parts of the tire or wheel.

The elements connecting the layers in the tire are considered to be spokes due to their structure and/or function.

It is felt that the references as applied show the claimed structure as broadly recited.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

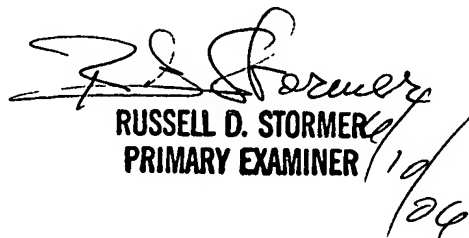
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell D. Stormer whose telephone number is (571) 272-6687. The examiner can normally be reached on Monday through Friday, 9 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joe Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6/10/06


RUSSELL D. STORMER
PRIMARY EXAMINER